

Kinser, Robin D.

From: Kinser, Robin D.
Sent: Wednesday, November 28, 2001 6:23 PM
To: Tricker, Anthony
Cc: Kinser, Robin D.
Subject: biomarkers

Hi Tony--

I recall as I write this that you are away on Thursday and Friday, and don't expect a response before next week sometime, so be calm.

Hans and I had a discussion of further biomarkers today and we agreed we wanted your input on two which are under consideration.

The first are N-terminal valine adducts of Hb as biomarkers of 1,3-butadiene exposure. I have a document prepared by Oey that indicates that Scherer says there is not difference in this marker between smokers and non-smokers. This suggests to me that this measurement is not meaningful in our work. I also have a paper (Boogard et al., *Chemico-Biological Interactions*, 135-136 (2001) 695 - 701) which says for occupationally-exposed workers, "[T]here was no influence from smoking on MHBVal levels." Comments?

My second question relates to trans, trans-muconic acid as a biomarker for benzene. We discussed this during our biomarker selection work last year, and, according to my notes, rejected it because the smoker/non-smokers ratio was too small. A table I have in my files, without citation, indicates a smoker/non-smoker ratio of ~2. I see that Sherer has 3 publications on this metabolite, and you're on one of them. I'll ask for the reprints, but am interested in what you think. Someone at the Brisbane meeting asked Roger why we weren't looking at benzene.

Thanks. It's always a pleasure working with you.

--Robin

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